

Section 823—Cutback Asphalt Emulsion

823.1 General Description

This section includes the requirements for cutback asphalt emulsions.

823.1.01 Related References

A. Standard Specifications

[Section 820—Asphalt Cement](#)

B. Referenced Documents

AASHTO:

T 44

T 49

T 51

T 55

T 72

T 111

[GDT 11](#)

823.2 Materials

823.2.01 Cutback Emulsion

A. Requirements

Use the various grades of cutback asphalt emulsions that meet the requirements shown in Table 1.

Table 1—Properties of Cutback Asphalt Emulsions

	Requirements	Grade			
		CBAE-2		CBAE-3	
		Min.	Max.	Min.	Max.
	Viscosity, Furol at 140° F (60 °C), in seconds	100	350	400	700
	Distillation:				
	Residue (asphalt cement) percent by weight	67		72	
	Water content percent by weight	4	12	4	12
	Naphtha content (by difference) percent by weight	12	25	10	20
	Tests on residue from distillation:				
	Penetration at 77 °F (25 °C), 100 g, 5 seconds	60	150	60	150
	Ductility at 77° F (25 °C), 5 cm per min., (cm)	100		100	
	Solubility in trichloroethylene, percent by weight	99		99	
	Ash, percent by weight		1.0		1.0

B. Fabrication

1. Prepare the cutback asphalt emulsions by compounding a suitable volatile naphtha, emulsifying agent, and water with asphalt cement.
2. Mechanically invert 100 percent of the cutback emulsions before shipping.

C. Acceptance

Test as follows:

Test	Method
Viscosity	AASHTO T 72
Distillation	GDT 11
Water	AASHTO T 55
Penetration	AASHTO T 49
Ductility	AASHTO T 51
Solubility	AASHTO T 44
Ash	AASHTO T 111

D. Materials Warranty

General Provisions 101 through 150.